

September 25, 2018

VIA HAND DELIVERY & ELECTRONIC MAIL

Luly E. Massaro, Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

**RE: Docket 4872 - 2018 Gas Cost Recovery Filing
Responses to Division Data Requests – Set 1**

Dear Ms. Massaro:

Enclosed please find 10 copies of National Grid's¹ responses to the following data requests in the Division of Public Utilities and Carriers' (Division) First Set of Data Requests (Division Set 1) in the above-referenced docket: Division 1-3 and Division 1-8 through Division 1-19. As agreed with the Division, National Grid will submit its responses to the remaining data requests from Division Set 1 by or before October 2, 2018.

This filing also contains a Motion for Protective Treatment of Confidential Information in accordance with Rule 1.2(g) of the Public Utilities Commission's (PUC) Rules of Practice and Procedure and R.I. Gen. Laws § 38-2-2(4)(B). National Grid seeks protection from public disclosure of certain confidential and privileged information, which is contained in its responses to Division 1-10, Division 1-12, and Division 1-16, as well as in Attachments DIV 1-10, DIV 1-13, DIV 1-14, and DIV 1-15. In compliance with Rule 1.2(g), National Grid has provided the PUC with one complete, unredacted copy of the confidential materials in a sealed envelope marked "**Contains Privileged and Confidential Materials – Do Not Release,**" and has included redacted copies of the materials for the public filing.

Thank you for your attention to this matter. If you have any questions, please contact me at 401-784-7415.

Very truly yours,



Robert J. Humm

Enclosures

cc: Docket 4872 Service List
Leo Wold, Esq.
Al Mancini, Division
John Bell, Division
Bruce Oliver, Division

¹ The Narragansett Electric Company d/b/a National Grid (National Grid or Company).

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

The paper copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.



Joanne M. Scanlon

September 25, 2018
Date

Docket No. 4872 – National Grid – 2018 Annual Gas Cost Recovery Filing (GCR) - Service List as of 9/11/18

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File an original & nine (9) copies w/: Luly E. Massaro, Commission Clerk Margaret Hogan, Commission Counsel Public Utilities Commission 89 Jefferson Blvd. Warwick, RI 02888	Luly.massaro@puc.ri.gov ;	401-780-2107
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STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

RHODE ISLAND PUBLIC UTILITIES COMMISSION

_____)	
)	
Annual Gas Cost Recovery Filing)	Docket No. 4872
2018)	
)	
_____)	

**MOTION OF THE NARRAGANSETT ELECTRIC
COMPANY D/B/A NATIONAL GRID FOR PROTECTIVE
TREATMENT OF CONFIDENTIAL INFORMATION**

National Grid¹ hereby requests that the Rhode Island Public Utilities Commission (PUC) grant protection from public disclosure of certain confidential, competitively sensitive, and proprietary information submitted in this proceeding, as permitted by PUC Rule 1.2(g) and R.I. Gen. Laws § 38-2-2(4)(B). National Grid also hereby requests that, pending entry of that finding, the PUC preliminarily grant National Grid's request for confidential treatment pursuant to Rule 1.2 (g)(2).

I. BACKGROUND

On September 25, 2018, National Grid submitted responses to the First Set of Data Requests from the Division of Public Utilities and Carriers in this docket (Division Set 1). Division Set 1 includes Data Requests Division 1-10 (seeking information regarding an asset management and gas supply agreement the Company is negotiating in response to a request for proposal (RFP)), Division 1-12 (seeking the Company's analyses and criteria for a long-term supply agreement in response to a RFP), Division 1-13 (seeking, *inter alia*, a copy of the

¹ The Narragansett Electric Company d/b/a National Grid (National Grid).

Company's transaction confirmation for citygate service in response to a RFP), Division 1-14 (seeking, *inter alia*, a copy of the Company's transaction confirmation for a maximum daily quantity of 10,000 dekatherms per day on the Tennessee Gas Pipeline from Everett, Massachusetts for 2018-19), Division 1-15 (seeking the Company's analysis regarding alternatives considered by the Company for replacing supply lost as a result of the decommissioning of the Cumberland liquefied natural gas (LNG) tank), and Division 1-16 (seeking gas cost pricing information regarding supply from the National Grid LNG, LLC (NGLNG) liquefaction facility).

The following responses and attachments the Company is producing in response to Division Set 1 include confidential gas cost pricing information, so the Company has provided redacted and un-redacted versions of such responses and attachments: Division 1-10, Attachment DIV 1-10, Division 1-12, Attachment DIV 1-13, Attachment DIV 1-14, and Division 1-16. In addition, the Company's response to Division 1-15 includes Attachment DIV 1-15, which is the Company's preliminary assessment of the timing, costs, and feasibility of confidential alternatives for permanently replacing the peak supply lost after the Cumberland LNG tank was taken out of service.

Therefore, the Company requests that, pursuant to Rule 1.2(g), the PUC afford confidential treatment to the information contained in the following responses to Division Set 1: (1) Division 1-10 and Attachment DIV 1-10; (2) Division 1-12; (3) Attachment DIV 1-13; (4) Attachment DIV 1-14; (5) Attachment DIV 1-15; and (6) Division 1-16.

II. LEGAL STANDARD

Rule 1.2(g) of the PUC's Rules of Practice and Procedure provides that access to public records shall be granted in accordance with the Access to Public Records Act (APRA), R.I. Gen. Laws § 38-2-1, *et seq.* Under APRA, all documents and materials submitted in connection with the transaction of official business by an agency is deemed to be a "public record," unless the information contained in such documents and materials falls within one of the exceptions specifically identified in R.I. Gen. Laws § 38-2-2(4). To the extent that information provided to the PUC falls within one of the designated exceptions to the public records law, the PUC has the authority under the terms of APRA to deem such information as confidential and to protect that information from public disclosure.

In that regard, R.I. Gen. Laws § 38-2-2(4)(B) provides that the following types of records shall not be deemed public:

Trade secrets and commercial or financial information obtained from a person, firm, or corporation which is of a privileged or confidential nature.

The Rhode Island Supreme Court has held that this confidential information exemption applies where the disclosure of information would be likely either (1) to impair the government's ability to obtain necessary information in the future; or (2) to cause substantial harm to the competitive position of the person from whom the information was obtained. *Providence Journal Company v. Convention Center Authority*, 774 A.2d 40 (R.I. 2001).

The first prong of the test is satisfied when information is voluntarily provided to the governmental agency and that information is of a kind that would customarily not be released to the public by the person from whom it was obtained. *Providence Journal*, 774 A.2d at 47.

III. BASIS FOR CONFIDENTIALITY

The information contained in the Company's responses to Division 1-10, Division 1-12, and Division 1-16, and Attachments DIV 1-10, DIV 1-13, DIV 1-14, and DIV 1-15 should be protected from public disclosure. The Company's responses to Division 1-10, 1-12, and Division 1-16 and Attachments DIV 1-10, DIV 1-13, and DIV 1-14 include confidential gas cost pricing terms. The pricing information provided is confidential and privileged information of the type that the Company does not ordinarily make public. Similarly, Attachment DIV 1-15 is the Company's preliminary assessment of confidential alternatives to permanently replace lost supply, including confidential cost information. Based on the preliminary nature of the assessment of the confidential alternatives, the assessment is information that the Company would ordinarily not make public. Public disclosure of the information in the above-referenced responses and attachments could impair the Company's ability to obtain advantageous pricing or other terms in the future, thereby causing substantial competitive harm. Accordingly, the Company is providing its responses to Division 1-10, Division 1-12, and Division 1-16 and Attachments DIV 1-10, DIV 1-13, DIV 1-14, and DIV 1-15 on a voluntary basis to assist the PUC with its decision-making in this proceeding, but respectfully requests that the PUC provide confidential treatment to the information.

IV. CONCLUSION

For the foregoing reasons, National Grid respectfully requests that the PUC grant its Motion for Protective Treatment of Confidential Information.

Respectfully submitted,

**THE NARRAGANSETT ELECTRIC
COMPANY d/b/a NATIONAL GRID**

By its attorney,



Robert J. Humm, Esq. (#7920)

National Grid

280 Melrose Street

Providence, RI 02907

(401) 784-7415

Dated: September 25, 2018

Division 1-3

Request:

Re: the Direct Testimony of Witnesses Culliford and Arangio at page 9, lines 6-7, please verify that based on the Forecast data for 2018/19 show in the table at the top of page 9, the forecast of Design Peak Day requirements presented in Company's March 30, 2018 LRP has been superseded by a more recent forecast.

Response:

Yes. Annually, the Company prepares its gas load forecast beginning in April, after the end of the heating season. The Company's Long-Range Resource and Requirements Plan for the Forecast Period 2017/18 to 2026/27, filed on March 30, 2018, was based on its annual forecast prepared in 2017. The forecast presented in the Company's 2018 Gas Cost Recovery filing was prepared in 2018.

Division 1-8

Request:

Re: the Direct Testimony of Witnesses Culliford and Arangio at page 13, lines 11-16, please:

- a. Document and explain the manner in which the Company's ability "to purchase less expensive supplies" at the referenced points on the Texas Eastern Transmission System is reflected in its projected 2018-19 gas costs for each month of the November 2018 to October 2019 period;
- b. Detail all adjustments to the 08/02/2018 NYMEX prices shown on page 3 of Attachment NGC/EDA-2 that are made to reflect the Company's ability on most days "to purchase less expensive supplies" at the referenced points on Texas Eastern Transmission system.

Response:

- a. Projected gas costs are calculated using the SENDOUT® model to perform a dispatch optimization of the entire Rhode Island portfolio of assets, which include Texas Eastern Transmission System (Texas Eastern) pipeline transportation contracts. These contracts allow the Company to purchase supplies at different points along the pipeline, ranging from points in the Gulf of Mexico located in South Texas (STX), East Texas (ETX), West Louisiana (WLA), and East Louisiana (ELA) to points located in the Marcellus basin region in Texas Eastern Market Area 2 (M2).

Page 1 of Attachment NGC/EDA-2 shows all sources of supply that the Company expects to purchase for the November 2018 to October 2019 period. Shown under the line for "TETCO M2" are the volume of supplies expected to be purchased from M2 for this time period. The Company does not expect to purchase supplies from STX, ETX, WLA, or ELA, based on forward pricing indicating these supplies will be more expensive than M2.

- b. The tables below show the expected basis differentials for purchase points located on Texas Eastern along with the expected total price of gas at such locations when adding the expected basis and the August 2, 2018 NYMEX strip. As shown in the tables, during the months November 2018 to October 2019, gas at M2 is expected to be less expensive than gas purchased at any of the Gulf of Mexico locations.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 4872
2018 Annual Gas Cost Recovery Filing
Responses to Division's First Set of Data Requests
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Division 1-8, page 2

Expected Basis Differentials												
	<u>Nov-18</u>	<u>Dec-18</u>	<u>Jan-19</u>	<u>Feb-19</u>	<u>Mar-19</u>	<u>Apr-19</u>	<u>May-19</u>	<u>Jun-19</u>	<u>Jul-19</u>	<u>Aug-19</u>	<u>Sep-19</u>	<u>Oct-19</u>
STX	(\$0.017)	(\$0.075)	(\$0.080)	(\$0.082)	(\$0.073)	\$0.013	\$0.015	\$0.023	(\$0.005)	(\$0.005)	\$0.005	(\$0.003)
ETX	(\$0.057)	(\$0.112)	(\$0.117)	(\$0.129)	(\$0.106)	(\$0.023)	(\$0.032)	(\$0.064)	(\$0.078)	(\$0.062)	(\$0.025)	(\$0.023)
WLA	(\$0.053)	(\$0.050)	(\$0.087)	(\$0.075)	(\$0.073)	(\$0.067)	(\$0.065)	(\$0.072)	(\$0.075)	(\$0.075)	(\$0.073)	(\$0.070)
ELA	(\$0.067)	(\$0.058)	(\$0.080)	(\$0.068)	(\$0.065)	(\$0.063)	(\$0.060)	(\$0.068)	(\$0.070)	(\$0.070)	(\$0.067)	(\$0.065)
M2	(\$0.365)	(\$0.350)	(\$0.290)	(\$0.285)	(\$0.327)	(\$0.383)	(\$0.480)	(\$0.495)	(\$0.515)	(\$0.502)	(\$0.597)	(\$0.587)

Expected Basis + 08/02/2018 NYMEX Strip												
	<u>Nov-18</u>	<u>Dec-18</u>	<u>Jan-19</u>	<u>Feb-19</u>	<u>Mar-19</u>	<u>Apr-19</u>	<u>May-19</u>	<u>Jun-19</u>	<u>Jul-19</u>	<u>Aug-19</u>	<u>Sep-19</u>	<u>Oct-19</u>
STX	\$2.840	\$2.883	\$2.963	\$2.924	\$2.830	\$2.618	\$2.593	\$2.631	\$2.637	\$2.643	\$2.634	\$2.642
ETX	\$2.800	\$2.846	\$2.926	\$2.877	\$2.797	\$2.582	\$2.546	\$2.544	\$2.564	\$2.586	\$2.604	\$2.622
WLA	\$2.804	\$2.908	\$2.956	\$2.931	\$2.830	\$2.538	\$2.513	\$2.536	\$2.567	\$2.573	\$2.556	\$2.575
ELA	\$2.790	\$2.900	\$2.963	\$2.938	\$2.838	\$2.542	\$2.518	\$2.540	\$2.572	\$2.578	\$2.562	\$2.580
M2	\$2.492	\$2.608	\$2.753	\$2.721	\$2.576	\$2.222	\$2.098	\$2.113	\$2.127	\$2.146	\$2.032	\$2.058

Division 1-9

Request:

Re: the Direct Testimony of Witnesses Culliford and Arangio at page 17, lines 8-11, please:

- a. Provide the current status of the referenced Portland application with the FERC;
- b. Detail the Company's plans for alternative supplies if Portland does not receive FERC approval of its application in time to permit a November 1, 2018 in-service date.

Response:

- a. The Portland Natural Gas Transmission System (Portland) application with the Federal Energy Regulatory Commission (FERC) is assigned docket number CP18-251-000. Portland's application seeks an order to amend its existing Natural Gas Act section 3 authorization and Presidential Permit issued September 24, 1997, as previously amended on November 18, 2003 and November 28, 2017, to permit an increase in Portland's authorized import and export capacity. Portland's application requests approval by September 30, 2018 to achieve an in-service date of November 1, 2018, and continues to cooperate with the FERC in responding to requests that will help the FERC in making a determination on the application.
- b. If Portland does not receive FERC approval of its application in time to permit a November 1, 2018 in-service date, the Company will consider purchasing additional supplies at the Dracut receipt point and transport such volumes on the Tennessee Gas Pipeline contracts to the Company's citygates.

Redacted
Division 1-10

Request:

Re: the Direct Testimony of Witnesses Culliford and Arangio at page 19, line 21, through page 20, line 3, please:

- a. Provide a copy of the final AMA when negotiations are completed;
- b. Provide the criteria used by the Company to evaluate the reasonableness of the asset management fee negotiated for that AMA.

Response:

- a. The Company is currently in the process of finalizing the Asset Management and Gas Supply Agreement (AMA). The Company will promptly supplement this response with a copy of the final AMA when negotiations are completed.
- b. The Company expects to receive \$[REDACTED] over the term of the AMA. Please see Confidential Attachment DIV 1-10 for the analysis in support of selecting [REDACTED] as the asset manager.

RFP Details:

Pipeline	Contract	National Grid Entity	Receipt Point	Delivery Point	Quantity (dth/day)	Quantity (gjd/day)
Union	M12164	Narragansett	Dawn	Parkway	1,025	1,081
TransCanada	42386	Narragansett	Parkway	Waddington	1,012	1,068

This RFP was for an AMA arrangement with supply Nov - Mar.
The term of the deal is November 1, 2018 - October 31, 2019.
The above assets will be release for the term to the winning bidder.
Base load supply will be December 2018 - February 2019 (1,012 dths/day)
Daily Call during November 2018 and March 2019 (1,012 dths/day)
Volumes will be delivered at TransCanada/Iroquois interconnect at Waddington, NY.
Successful bidder will also be the supplier.
Base load price is Inside FERC's FOM for Dawn, Ontario; Daily Call price is Gas Daily Index for Dawn, Ontario.
Daily Nominations prior to 10:00 AM EST.

Bids:	AMA Fee	Supply	Nominations	Notes:

The Narragansett Electric Company
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Division 1-11

Request:

Re: the Direct Testimony of Witnesses Culliford and Arangio at page 21, lines 1-11, please:

- a. Provide a copy of the final agreement and transaction confirmation when negotiations are completed for supply for the Dracut capacity path;
- b. Including pipeline capacity charges, provide the expected delivered volumes and cost of gas per Dth by month for each month of the 2018-19 GCR year.

Response:

- a. The Company is currently in the process of finalizing the agreement. The Company will promptly supplement this response with the requested information when negotiations are completed.
- b. Please see the table below for the expected delivered volumes and cost of gas per dekatherm (Dth), including pipeline capacity charges, under normal weather conditions by month for each month of the 2018-19 Gas Cost Recovery year for the Dracut capacity path.

TENNESSEE DRACUT	<u>Nov-18</u>	<u>Dec-18</u>	<u>Jan-19</u>	<u>Feb-19</u>	<u>Mar-19</u>	<u>Apr-19</u>	<u>May-19</u>	<u>Jun-19</u>	<u>Jul-19</u>	<u>Aug-19</u>	<u>Sep-19</u>	<u>Oct-19</u>
Delivered Volumes	0	8,970	38,875	16,491	0	0	0	0	0	0	0	0
Cost of Gas per Dth	\$2.896	\$2.997	\$3.082	\$3.045	\$2.942	\$2.644	\$2.617	\$2.647	\$2.681	\$2.687	\$2.668	\$2.684
Capacity Charge per Dth per Day	\$0.156	\$0.156	\$0.156	\$0.156	\$0.156	\$0.156	\$0.156	\$0.156	\$0.156	\$0.156	\$0.156	\$0.156
Total Delivered Cost	\$0	\$28,286	\$125,890	\$52,794	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Redacted
Division 1-12

Request:

Re: the Direct Testimony of Witnesses Culliford and Arangio at page 21, line 13, through page 22, line 4, please:

- a. Provide the MDQs and MSQs for all years of the contract;
- b. Document the analyses and criteria that were used to determine:
 - i. The appropriate length for the long-term contract,
 - ii. The MDQ for each year of the contract,
 - iii. The MSQ for each year of the contract.

Response:

- a. Please see the table below for the maximum daily quantities (MDQs) and maximum seasonal quantities (MSQs), in dekatherms (Dth), for the term of the supply agreement.

Delivery Period	MDQ (Dth)	MSQ (Dth)
December 1, 2018-March 31, 2019	15,000	321,000
December 1, 2019-March 31, 2020	20,000	632,000
December 1, 2020-March 31, 2021	20,000	651,000
December 1, 2021-March 31, 2022	20,000	651,000

- b.
 - i. – iii. In order to determine the term of the supply agreement, the MDQ for each year of the supply agreement, and the MSQ for each year of the supply agreement, the Company used its Long-Range Resource and Requirements Plan for the Forecast Period 2017/18 to 2026/27 (Long-Range Plan), filed on March 30, 2018 in Docket No. 4816, which included updated SENDOUT® model runs. The Long-Range Plan, using forecasted customer requirements updated on February 20, 2018, demonstrates that this incremental supply is needed to meet forecasted customer requirements on a design day and design season basis for the term of the supply agreement and beyond.

Redacted

Division 1-12, page 2

The MDQs of the supply agreement coincide with the MDQs of the Company's transportation agreements on Tennessee Gas Pipeline that originate at Everett, Massachusetts. At the time the request for proposals seeking this supply was issued, the Company's receipt point entitlement originating at Everett were 15,000 Dth per day in 2018-19, increasing to 20,000 Dth per day for 2019 through 2023, and increasing to 30,000 Dth per day in 2023 through 2038, matching the MDQs of the supply agreement [REDACTED].

The forecast results included in the Long-Range Plan determined the MSQ for each year of the supply agreement. The table below provides a summary of the design season need for supplies at Everett.

National Grid Rhode Island Comparison of Resources and Requirements Base Design Year (BBtu)					
Base Design Heating Season (Nov-Mar)					
RESOURCES		2018/19	2019/20	2020/21	2021/22
TGP	Dawn	1,774	3,049	3,145	2,989
	Niagara	162	164	162	162
	Zone 4	4,207	3,479	3,402	3,587
	Dracut	346	13	0	0
	TGP Citygate	0	0	0	0
	TGP Everett	321	632	651	650
	Storage	1,302	1,293	1,293	1,320

Redacted

Division 1-12, page 3



Division 1-13

Request:

Re: the Direct Testimony of Witnesses Culliford and Arangio at page 22, lines 5-14, please:

- a. Provide a copy of the contract and final transaction confirmation when negotiations are completed for citygate delivered supplies;
- b. Explain why the Company has requested each bidder to demonstrate that it has primary firm capacity to each delivery point at which the bidder is offering firm service;
- c. Document any and all problems the Company has encountered in the last five years with bidders not having either primary firm capacity or adequate priority of service to fulfill supply commitments for citygate delivered supplies.

Response:

- a. Please see Attachment DIV 1-13 for a copy of the requested information.
- b. During the extreme cold period in late-December 2017 into mid-January 2018, two sellers of firm peaking supplies to the Company's Massachusetts affiliate, Boston Gas Company, failed to deliver the requested supply based upon restrictions on the Tennessee Gas Pipeline (Tennessee). In response to these supplier defaults, the Company sought to include a demonstration of primary firm capacity or an explanation of the priority of service the supplier would utilize in order to meet its firm obligations in all future requests for proposals for citygate delivered supplies for National Grid's New England local distribution companies served by Algonquin Gas Transmission and Tennessee. These peaking supplies are needed most on the coldest days, and it is absolutely essential that the gas is delivered in order to meet customer requirements.
- c. To date, the Company has not had a problem with a supplier not delivering to the Rhode Island portfolio. Please see the explanation in part (b) above as to why the Company implemented a request for an affidavit for citygate deliveries.

REDACTED

NG Phys Option: 29778
NG Phys Fee: 297796

TRANSACTION CONFIRMATION

ENGIE Gas & LNG LLC	Date: ^{Sept} August 7, 2018 Transaction Confirmation: NSB042-17
<p>This Transaction Confirmation is subject to the Base Contract between Seller, formerly known as GDF SUEZ Gas NA LLC, and Buyer dated December 19, 2011, as amended. The terms of this Transaction Confirmation are binding unless disputed in writing within two (2) Business Days of receipt unless otherwise specified in the Base Contract.</p>	
Seller or Party A: ENGIE Gas & LNG LLC 1990 Post Oak Blvd Suite 1900 Houston TX 77056 Attn: Contract Administration Telephone: (713) 636-1742 Facsimile: (713) 636-1247 Email: jason.austin@engie.com Base Contract No.: NSB042	Buyer or Party B: The Narragansett Electric Company d/b/a National Grid c/o National Grid 100 East Old Country Road Hicksville, NY 11801 Attn: Director - Gas Contracting and Regulatory Compliance Telephone: (516) 545-3108 Email: john.allocca@Nationalgrid.com
<p>Contract Price: Buyer shall pay to Seller a Contract Price per MMBtu of Gas equal to the following two components:</p> <p>1. <u>Commodity Rate</u>. For each MMBtu of Gas delivered to Buyer during the Delivery Period, Buyer will pay to Seller a rate per MMBtu equal to [REDACTED] ("Commodity Rate"); and</p> <p>2. <u>Demand Charge</u>: Additionally, Buyer shall make annually, a non-refundable demand charge payment to Seller of [REDACTED] for Firm delivery of Gas set forth herein ("Demand Charge"). The Demand Charge due and payable hereunder shall be paid to Seller in four monthly installments of [REDACTED] in December 2018, and January, February and March 2019.</p> <p>The Commodity Rate and the Demand Charge components, each as stated on a per MMBtu basis, are hereinafter collectively referred to as the "Contract Price" (per MMBtu).</p> <p>[REDACTED]</p>	
<p>Delivery Period: The total term of this Transaction Confirmation shall be December 1, 2018, at 10:00 am Eastern Time (ET) through and including 9:59 am ET on April 1, 2019: ✓</p>	

REDACTED

Performance Obligation and Contract Quantity: Firm Gas service.

Firm (Variable) Quantity: On any day during the Delivery Period, Buyer shall have the right, but not the obligation, to purchase on a Firm basis a "Maximum Daily Quantity" or "MDQ" of Gas not to exceed **14,100 MMBtu/day** and a total Contract Quantity of **507,600 MMBtu** during the Delivery Period. ✓

Delivery Point(s):

For Firm delivery service of Gas on the Algonquin Gas Transmission system at a primary firm point at Meter No. 00012 (Warren) in the maximum amount of 1,000 MMBtu/Day and at a secondary firm in-path point at Meter No. 00018 (Bourne) in the maximum amount of 13,100 MMBtu/Day.

Special Conditions:

1. **Scheduling:** All Notices and communications given in connection with Nominations pursuant to Section 4 of the Base Contract may be provided by telephone or instant messaging. Buyer shall make all Nominations for deliveries of Gas occurring on any weekday, weekend day (Saturday, Sunday and Monday), and any Holiday, prior to 10:00 a.m. Eastern Time (ET) on the Business Day prior to the Day of Gas flow; for purposes herein, "Holiday" shall mean any day that the Intercontinental Exchange ("ICE") designates as a holiday. [REDACTED]
2. [REDACTED]
3. **Dodd-Frank Compliance:** The parties agree that for purposes of this Transaction Confirmation and as of the Trade Date each party is a producer, processor, commercial user of, or a merchant handling the commodity that is the subject of the Transaction Confirmation and is entering into this Transaction Confirmation solely for purposes related to its business as such. The parties confirm their intention that if any such commodity option transaction be physically settled, such that if exercised, it results in the sale of a commodity for either immediate or deferred delivery.
4. In the event of a conflict between the terms and conditions of the (i) Transaction Confirmation, (ii) Special Provisions, and (iii) Base Contract, the terms and conditions of the documents shall govern in the priority listed in this proviso.
5. Capitalized terms used herein and not otherwise defined shall have the meaning set forth in the Base Contract, as amended, and as supplemented and modified by the Special Provisions.

Seller: ENGIE Gas & LNG LLC

By: [Signature]

Name: R. Wilson

Title: CEO

Date: 9/19/2018

Buyer: The Narragansett Electric Company d/b/a National Grid

By: [Signature]

Name: Patricia Gamarra

Authorized Signatory

Title: _____

Date: 9/19/2018

Division 1-14

Request:

Re: the Direct Testimony of Witnesses Culliford and Arangio at page 22, line 16 through page 23, line 8, please:

- a. Provide a copy of the contract and final transaction confirmation when negotiations are completed to supply the MDQ of 10,000 per day on the Tennessee pipeline from Everett, Massachusetts for 2018-19;
- b. Detail any rights or options the Company has obtained for future supplies of a similar nature;
- c. If no commitments beyond 2018-19 have been obtained, explain the Company's plan for replacing such supplies in subsequent winters.

Response:

- a. Please see Attachment DIV 1-14 for a copy of the requested information.
- b. At this time, the Company does not have any rights or options to obtain future supplies of a similar nature for this volume of 10,000 dekatherms (Dth) per day. Please see the Company's response to Division 1-12 regarding the purchase of volumes at Everett, Massachusetts.
- c. The Company intends to seek supplies beyond 2018-19 from Everett. The incremental 10,000 Dth per day was accelerated after the Request for Proposal for supplies at Everett was issued on April 3, 2018, so the volumes that would flow on this capacity were not included.

TRANSACTION CONFIRMATION
FOR IMMEDIATE DELIVERY

<p>ENGIE Gas & LNG LLC</p>		<p>Date: January 9, 2018 Transaction Confirmation: NSB042-14</p>
<p>This Transaction Confirmation is subject to the Base Contract between Seller and Buyer dated December 19, 2011. The terms of this Transaction Confirmation are binding unless disputed in writing within two (2) Business Days of receipt unless otherwise specified in the Base Contract.</p>		
<p>Seller or Party A: ENGIE Gas & LNG LLC 1990 Post Oak Blvd Suite 1900 Houston, TX 77056 Attn: Contract Administration Telephone: (713) 636-1742 Facsimile: (713) 636-1247 Email: jason.austin@engie.com Base Contract No. NSB042</p>	<p>Buyer or Party B: The Narragansett Electric Company d/b/a National Grid c/o National Grid 100 East Old Country Road Hicksville, NY 11801 Attn: Director - Gas Contracting and Regulatory Compliance Telephone: (516) 545-3108 Email: john.allocca@NationalGrid.com</p>	
<p>Contract Price: Buyer shall pay to Seller a Contract Price per MMBtu equal to the following two components:</p> <p>I. <u>Commodity Rate</u>: For each MMBTU of Gas or LNG delivered to Buyer during the Delivery Period, Buyer will pay to Seller a rate per MMBtu equal to [REDACTED] ("Commodity Rate") and [REDACTED]</p> <p>II. <u>Call Payment</u>: [REDACTED]</p> <p>service commencing January 10, 2018 through and including March 31, 2018.</p> <p>The Commodity Rate and the Call Payment components each as stated on a per MMBtu basis, are hereinafter collectively referred to as the "Contract Price" per MMBtu and shall be paid in accordance with Section 7 of the Base Contract.</p> <p>[REDACTED]</p>		
<p>Delivery Period:</p> <p><u>LNG</u>: January 10, 2018 at 10:00 am Eastern Time (ET) through and including October 1, 2018 at 9:59 am ET.</p> <p><u>Gas</u>: January 10, 2018 at 10:00 am ET through and including April 1, 2018 at 9:59 am ET.</p>		
<p>Performance Obligation and Contract Quantity: Firm Combination (Liquid and/or Vapor) Services</p> <p>Firm (Variable) Quantity: For deliveries of both Gas and LNG during each Delivery Period, a Maximum Daily Quantity or "MDQ" not to exceed 10,000 MMBtu per Day with a total Contract Quantity of Gas and LNG during each such Delivery Period not to exceed 150,000 MMBtu, subject to the following:</p> <p>I. The MDQ stated herein is aggregated. On any Day during each Delivery Period (i) deliveries of only Gas to Buyer shall not exceed an MDQ of 10,000 MMBtu, and (ii) deliveries of only LNG to Buyer shall not exceed an MDQ of 10,000 MMBtu, based on one (1) LNG Truck equaling approximately 1,000 MMBtu, plus any additional quantities required to fill such LNG Truck to capacity; and</p> <p>II. On any day when both LNG and Gas are being delivered, the combined daily quantities shall be acknowledged such that this Firm Combination Service shall remain within the MDQ stated herein.</p>		

<p>Delivery Point(s):</p> <p><u>LNG:</u> For Firm delivery service of LNG, at the truck loading flange of the Distrigas of Massachusetts LLC marine LNG terminal located in Everett, Massachusetts ("Facility") for redelivery to Buyer only at its National Grid Facilities.</p> <p><u>Gas:</u> For Firm delivery of Gas, Buyer may nominate up to 10,000 MMBtu/day for delivery on a secondary basis at meter # 0004 (Dey Street).</p>	
<p>Special Conditions:</p> <ol style="list-style-type: none"> 1. <u>Transportation of LNG:</u> Transport from the Distrigas of Massachusetts LLC marine LNG terminal in Everett, MA, shall be scheduled solely by Buyer. All costs associated with such transportation, including any surcharges, shall be the responsibility of the Buyer. 2. <u>Scheduling:</u> All Notices and communications given in connection with Nominations pursuant to Section 4 of the Base Contract may be provided by telephone or instant messaging. Buyer shall make all Nominations for deliveries of Gas occurring on any weekday, weekend day (i.e., Saturday, Sunday, Monday) and any Holiday, prior to 10:00 a.m. Eastern Standard Time (EST) on the Business Day prior to the Day of Gas flow. [REDACTED] 3. <u>Dodd-Frank Compliance:</u> The parties agree that for purposes of this Transaction Confirmation and as of the Trade Date each party is a producer, processor, commercial user of, or a merchant handling the commodity that is the subject of the Transaction Confirmation and is entering into this Transaction Confirmation solely for purposes related to its business as such. The parties confirm their intention that if any such commodity option transaction be physically settled, such that if exercised, it results in the sale of a commodity for either immediate or deferred delivery. 4. <u>Document Conflict:</u> In the event of a conflict between the terms and conditions of the (i) Transaction Confirmation, (ii) LNG Annex (iii) Special Provisions and (iv) Base Contract, the terms and conditions of the documents shall govern in the priority listed in this proviso, as applicable depending on whether the purchase was of LNG or Gas. 5. Capitalized terms used herein and not otherwise defined shall have the meaning set forth in the Base Contract, as amended by any Special Provisions and the LNG Annex. 	
<p>Seller or Party A:</p> <p>ENGIE Gas & LNG LLC</p> <p>By: <u>Rudolph R. Adamiak</u></p> <p>Name: <u>RUDOLPH R. ADAMIAK</u></p> <p>Title: <u>SVP-COMMERCIAL</u></p> <p>Date: January <u>26</u>, 2018</p>	<p>Buyer or Party B:</p> <p>The Narragansett Electric Company d/b/a National Grid</p> <p>By: <u>John V. Vaughn</u> <i>CC</i></p> <p>Name: <u>Authorized Signatory</u></p> <p>Title: _____</p> <p>Date: January <u>30</u>, 2018</p>

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Division 1-15

Request:

Re: the Direct Testimony of Witnesses Culliford and Arangio at page 24, lines 1-8, please:

- a. Identify all alternatives to the referenced "precedent agreement" that have been considered by the Company for replacing supply lost as a result of the decommissioning of the Cumberland LNG tank;
- b. Provide all analyses upon which the Company relies to demonstrate that the referenced precedent agreement will be the most cost-effective alternative for its Rhode Island gas customers.

Response:

- a. Please see Confidential Attachment DIV 1-15, which identifies all alternatives considered by the Company for replacing supply lost as a result of the decommissioning of the Cumberland liquefied natural gas tank.
- b. Please see Confidential Attachment DIV 1-15 for the requested analysis.

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Attachment DIV 1-15

REDACTED

Redacted
Division 1-16

Request:

Re: the Direct Testimony of Witnesses Culliford and Arangio at page 25, lines 10-18, please:

- a. Provide the Company's assessment of the expected delivered cost per Dth of supply from the NGLNG facility, including all associated fixed charges, for the first five years of operation for that facility;
- b. Identify the supplies the NGLNG volumes will replace in each of the first five years of operation of that facility;
- c. Document the Company's estimates of the expected delivered costs per Dth, including all fixed charges, of the supplies that will be displaced by the NGLNG over its first five years of operation.

Response:

- a. Please see the table below for the expected delivered cost per dekatherm (Dth) of supply from the National Grid LNG, LLC (NGLNG) liquefaction facility, which includes liquefaction fixed charges for the first five years of operation. Indicative pricing is from the Gas Long-Range Resource and Requirements Plan for the Forecast Period 2017/18 to 2026/27 (Long-Range Plan) filed on March 30, 2018 in Docket No. 4816.

2020 - 2021	2021 - 2022	2022 - 2023	2023 - 2024	2024 - 2025

- b. Without the NGLNG liquefaction project, the Company would contract for a summer liquefied natural gas (LNG) refill, winter LNG refill, and /or citygate supply service if these resources are available. Even with NGLNG liquefaction, the Company still has unserved volumes pursuant to the Long-Range Plan (Design Base Case) for the design heating season.
- c. Please see the table below for the Company's estimate of a summer LNG refill, winter LNG refill, and citygate peaking supply. Indicative pricing is from the Long-Range Plan and current contractual commitments.

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Redacted
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	2020 - 2021	2021 - 2022	2022 - 2023	2023 - 2024	2024 - 2025
Summer LNG Refill					
Winter LNG Refill					
Citygate Peaking Supply					

Division 1-17

Request:

Re: the Direct Testimony of Witnesses Culliford and Arangio at page 26, lines 1-7, please:

- a. Identify the expected time schedule for Northeast Energy to file its application(s) for regulatory approval and authorization to construct and operate the facilities necessary to provide the contracted liquefaction services;
- b. Identify each regulatory approval that will be required;
- c. Provide the estimated construction schedule necessary to meet an April 1, 2020 in-service date, including any and all time required for testing and verifying the capabilities of the Northeast Energy facility before it is placed in-service.

Response:

- a. On August 31, 2018, Northeast Energy Center LLC (Northeast Energy) submitted a petition to the Massachusetts Energy Facilities Siting Board (EFSB) for approval to construct, operate, and maintain a new natural gas liquefaction and storage facility in the town of Charlton, Massachusetts. The docket number assigned to the EFSB petition is EFSB 18-04. In the petition, Northeast Energy included a description of the project; an analysis of the project need; an analysis of the alternatives to the project and the site selection process; and a review of the project's environmental impacts and proposed mitigation measures and design requirements. Also on August 31, 2018, Northeast Energy submitted to the Massachusetts Department of Public Utilities a petition for determination that certain zoning exemptions related to the project facilities are reasonably necessary for the convenience or welfare of the public. The docket number assigned to the DPU petition is D.P.U. 18-96.
- b. For a complete list of all permits and variances requested, please see Northeast Energy's application at EFSB 18-04.
- c. The preliminary project schedule contemplated in Northeast Energy's EFSB application estimates a maximum of 24 months for the contracted-for liquefaction services to be ready for service. This timeline includes allowance for 24 months for engineering and project management services; 18 months for the procurement of long lead items; 12 months for prefabrication of components; and 12 months for field construction, commissioning, and training. Northeast Energy anticipates being able to compress the

Division 1-17, page 2

schedule and parallel some of the activities by pre-ordering long-lead items and prefabricating the equipment in order to meet the April 2020 in-service date.

Division 1-18

Request:

Re: the Direct Testimony of Witnesses Culliford and Arangio at page 26, lines 9-20, please:

- a. Explain why there appears to be no pipeline path involving the Millennium pipeline capacity among the pipeline paths offered for assignment to marketers;
- b. Identify each pipeline path offered to Marketers that utilizes AIM capacity and document the manner in which the costs of that capacity are reflected in the charges assessed to marketers for each pipeline path that utilizes such capacity;
- c. Explain how each of the new pipeline capacity contract discussed in the Witnesses' testimony is reflected in the pipeline paths offered to Marketers.

Response:

- a. There is no pipeline path involving the Millennium pipeline capacity among the pipeline paths offered for assignment to Marketers because the Millennium capacity is not expected to be available as of November 1, 2018. Furthermore, the Company made available a total of 35,258 dekatherms (Dth) for November 1, 2018 and as of August 1, 2018, only 33,587 Dth are released to Marketers. Thus it was not necessary to increase the total available capacity at this time.
- b. There are no paths offered to Marketers that utilize Algonquin Incremental Market (AIM) capacity; however, the costs associated with the AIM capacity are included in the overall Company weighted average cost of capacity shown on Attachment NGC/EDA-4 at page 1. The price paid by Marketers for capacity paths released includes the cost of AIM capacity.
- c. Each of the new pipeline capacity contracts are reflected in the overall Company weighted average capacity costs shown on Attachment NGC/EDA-4 at page 1. This weighted average cost is netted against the cost of each path available for release, which is then reflected in the credit or surcharge that the Marketers will receive or pay.

Division 1-19

Request:

Re: Attachment NGC/EDA-5, page 1 of 1, please provide the data, analyses, workpapers and assumptions relied upon to determine each of the Minimum Inventory Levels set forth for:

- a. Underground Storage;
- b. Peaking Inventory.

Response:

- a. The Minimum Inventory Levels set forth in Attachment NGC/EDA-5 for non-daily metered FT-2 customers are calculated in the same manner as Sales customers and are based on the Company's inventory rule curve. The inventory rule curve reflects the volume of inventory needed to meet customer demand through design forward weather conditions.

The inventory rule curve is developed using a design year forecast for both Sales and Transportation customers inputted into the SENDOUT® model. The model produces beginning of the month inventory volumes for each month during the heating season, which the Company then adjusts to a daily volume by dividing by the number of days in each month. These volumes can then be divided by the maximum usable inventory volume to calculate the percentage of capacity the Company should be on any day. These percentages, which are shown on Attachment NGC/EDA-5 for each given date, are the same inventory levels that the Company follows when serving Sales customers.

Attachment DIV 1-19 provides the design year SENDOUT® report, the beginning of the month inventory volumes, and the associated rule curve used to determine the minimum inventory levels set forth in Attachment NGC/EDA-5.

- b. Please see the response to part (a) above.

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Attachment DIV 1-19

Please refer to the Excel version of Attachment DIV 1-19